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NEVADA OF ENVIRONMENTAL PROTECTION DIVISION
FACT SHEET

(pursuant to NAC 445A.236)

Applicant: National Nuclear Security Administration/Nevada Site Office (NNSA/NSO)
P.O. Box 98518
Las Vegas, Nevada 89193

Permit: NV0023507

Location: NNSA/NSO North Las Vegas Facility (NLVF)
2621 Losee Road
North Las Vegas, Clark County, Nevada 89030
Latitude: 36° 12' 32.5" N, Longitude: 115° 08' 15.4" W
(Latitude/Longitude at Guard Gate; Outfall 001)
Latitude: 36° 12' 29.9" N, Longitude: 115° 8' 3.6" W
(Latitude/Longitude at Outfall 002)
Township 20S, Range 61E, Section 15 MDB&M

Flow: The Applicant has requested a daily maximum flow of 0.005184 MGD.

General: The Applicant has applied for a National Pollutant Discharge Elimination System (NPDES) permit, NV0023507, to discharge dewatering groundwater to the Las Vegas Wash via the City of North Las Vegas stormdrain system. The stormdrain system inlet is located at the corner of Losee Road and Atlas Drive, North Las Vegas, Nevada. Presently the Applicant is authorized to discharge to groundwater of the State via percolation through landscape irrigation and dust control under Temporary Permit #TNEV2006445 which will expire on December 6, 2006. An NPDES permit is required because the dewatering system is to be a permanent installation and the Applicant intends to add a point of discharge to include waters of the United States, i.e., the Las Vegas Wash. Groundwater discharges will continue via landscape irrigation and dust suppression. Drawdown wells (NLVF 12s, NLVF-13s, NLVF-15 NLVF-16 and NLVF-17) have been installed to address rising groundwater that could adversely impact the building foundations at the NLVF. Groundwater has been encroaching on the NLVF since 1999, concurrent with the injection program instituted by the Las Vegas Valley Water District. Up to five (5) wells (NLVF 12s, NLVF-13s, NLVF-15, NLVF-16 and NLVF-17) may be used as dewatering wells to control the rising groundwater. Each well will produce up to one (1) gallon per minute. Current flow is approximately 3000 gallons per day (0.0030 MGD) and the Applicant is requesting a daily maximum flow of 5184 gallons per day (0.005184 MGD). All pumped water is piped into a 10,000 gallon above ground holding tank. From the holding tank the water can be pumped to a tanker truck (for dust suppression and landscape irrigation, Outfall 001), or hard piped directly to the North Las Vegas stormdrain (Outfall 002). The dewatering water may also be used for purposes that do not require a groundwater discharge or an NPDES permit, e.g., evaporative cooling.

Receiving Water Characteristics: The receiving waters are the groundwater of the State via landscape irrigation and dust suppression and the Las Vegas Wash via the North Las Vegas stormdrain system. Groundwater at the NLVF meets drinking water quality standards. Water quality standards for the Upper Las Vegas Wash are specified in NAC 445A.199.

Water quality characteristics of the discharged water in December 2005 was as follows: pH, 7.9 SU (limit 6.5 to 9.0 SU); Nitrite, 4.4 mg/L (limit 10 mg/L); Nitrate 1.5 mg/L (limit 100 mg/L); TSS, non-detect (limit 135 mg/L; 5.84 lbs/day); TDS, 515 mg/L; (limit 1900mg/L; 82.2 lbs/day); Fecal Coliform, absent; (limit 200 MPN/100 ml); Tritium, 15

pCi/L (Safe Drinking Water limit 20,000 pCi/L)).

The beneficial uses of the Upper Las Vegas Wash, as designated in NAC 445A.198, are propagation of aquatic life, excluding fish; propagation of wildlife; irrigation; recreation not involving contact with water; maintenance of a freshwater marsh; and watering of livestock.

Table 1: Discharge Limitations[1]:

Parameter	Discharge Limitations		Monitoring Requirements	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD	---	0.005184	Continuous	Flow Meter
TPH, mg/L	---	1.0	Annually (4th quarter)	Discrete
Total Suspended Solids	---	135 mg/L 5.84 lbs/day	Quarterly	Discrete
Total Dissolved Solids	---	1900 mg/L 82.15 lbs/day	Quarterly	Discrete
Total Inorganic Nitrogen as N	---	20.0 mg/L 0.86 lbs/day	Quarterly	Discrete
pH, SU	6.5 ≤ pH ≤ 9.0		Quarterly	Discrete
Tritium (pCi/L)	Monitor & Report		Annually (4th quarter)	Discrete
Attachment A	Monitor & Report		Biennial[2,3]	Discrete

[1]: Samples shall be collected from the sampling petcock located on the 10,000 gallon holding tank.
[2]: Begin Monitoring in January 2007; Report in 4th Quarter (Annual Report) of year monitored.
[3]: Sampling frequency may be increased if Attachment A constituents analyses show positive results.

MGD: Million gallons per day. as N: As nitrogen.
TPH: Total petroleum hydrocarbons. SU: Standard units.
mg/L: Milligram per liter. pCi/L: picoCurie per liter
lb/day: Pounds per day = Concentration (mg/L) x Flow (MGD) x 8.34.

Rationale for Permit Requirements: Monitoring requirements for the parameters specified in Table 1 above have been established to ensure that the receiving waters, the ground and surface waters of the State, i.e., the Las Vegas Wash, are not degraded as a result of the dewatering of the Applicant's NLVF.

Flow: The Applicant has requested a maximum daily flow of 0.005184 MGD.

Total Petroleum Hydrocarbons (TPH): The Applicant stores some fuel products at the NLVF site. This parameter is monitored to ensure that no petroleum products are leaking into the groundwater.

Total Dissolved Solids (TDS): NAC 445A.199 includes a single value at 180ºC TDS standard for requirements to maintain existing higher quality for 95% of samples ≤ 1,900 mg/L.

Total Inorganic Nitrogen as Nitrogen (TIN): NAC 445A.199 includes a requirement to maintain existing higher quality TIN standard of 95% of the samples ≤ 20.0 mg/L.

pH: NAC 445A.199 includes a single value pH water quality standard for beneficial uses within the range of 6.5 – 9.0

SU.

Total Suspended Solids (TSS): NAC 445A.199 includes a TSS water quality standard for beneficial uses of ≤ 135 mg/L.

Tritium: Tritium had been stored at the NLVF in the past and some leakage in the shallow groundwater aquifer had been previously detected.

Attachment A Parameters: These parameters are monitored to ensure that no chemicals stored on site have leaked into the groundwater.

Schedule of Compliance: The Applicant shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications the Administrator may make in approving the schedule of compliance. The Applicant shall implement and/or execute the following scheduled compliance requirements:

a. Upon the effective date of this permit, the Applicant shall achieve compliance with the effluent limitations.

b. Within 45 days of the effective date of the permit **(December 11, 2006)**, the Applicant shall submit an Operations and Maintenance (O&M**)** Manual to the Division for review and approval.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit authorizing the discharge of dewatering water to the Las Vegas Wash, subject to the conditions contained within the permit is being sent to the **Las Vegas Review-Journal** for publication. The Notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail, time-stamped faxes, e-mails, or hand-delivered items) to the Division is **5:00 PM on October 23, 2006**.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Jim Hogan
Date: September 2006

Attachment A:

Priority Pollutants

Base Neutral Extractables
Acenaphthene
Benzidine
1,2,4-Trichlorobenzene
Hexachlorobenzene
Hexachloroethane
Bis(2-chloroethyl) ether
2-Chloronaphthalene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3'-Dichlorobenzidine
2,4-Dinitrotoluene
2,6-Dinitrotoluene
1,2-Diphenylhydrazine
Fluoranthene
4-Chlorophenyl phenyl ether
4-Bromophenyl phenyl ether
Bis(2-Chloroisopropyl) ether
Bis(2-Chloroethoxy) methane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
N-Nitrosodi-n-propylamine
Bis(2-ethylhexyl) phthalate
n-Butyl benzyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Diethyl phthalate
Dimethyl phthalate
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Chrysene
Acenaphthylene
Antracene
Benzo(g,h,i)perylene
Fluorene
Phenanthrene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Pyrene

Acid Extractables
2,4,6-Trichlorophenol
4-Chloro-3-methylphenol
2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2-Nitrophenol
4-Nitrophenol
2,4-Dinitrophenol
2-Methyl-4,6-dinitrophenol
Pentachlorophenol
Pentachlorophenol
Phenol

Volatile Organics
Acrolein
Acrylonitrile
Benzene
Carbon tetrachloride
Chlorobenzene
1,2-Dichloroethane
1,1,1-Trichloroethane
1,1-Dichloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
Chloroethane
2-Chloroethylvinylether
Chloroform
1,1-Dichloroethene
Trans-1,2-Dichloroethene
1,2-Dichloropropane
1,3-Dichloropropene
Ethylbenzene
Dichloromethane
Chloromethane
Bromomethane
Bromoform
Bromodichloromethane
Dibromochloromethane
Tetrachloroethene
Toluene
Trichloroethene
Vinyl chloride

Pesticides
Aldrin
Dieldrin
Chlordane (Technical)
4,4'-DDT
4,4'-DDE
4,4'-DDD
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
Alpha-BHC
Beta-BHC
Gamma-BHC (Lindane)
Delta-BHC
PCB 1016
PCB 1221
PCB 1232
PCB 1242
PCB 1248
PCB 1254
PCB 1260
Toxaphene

Dioxins
TCDD

Metals
Antimony
Arsenic
Beryllium
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

Other
Cyanide
Asbestos